1   ABSTRACT

2   A real time data compression method examines whether a present

3   read-in data point is in a predicted tolerable error range. If yes, the previous data

4   point is deemed as redundant and is ignored and after which a new data point is

5   read in for comparing again. When a predetermined amount of data points is

6   continuously ignored, it means the data is steady and only the final data point of

7   these ignored ones is recorded. Otherwise, when data is varied greatly during a

8   period, only the total amount of these varying data points and their value are

9   recorded so the memory capacity for storing the compressed data is saved.

10   Furthermore, the compressed data is stored in a form of a data structure in which

11   the compressed data are expressed by multiple blocks. The block form allows

12   increase of the efficiency of the searching process of the compressed data.